

### **Remarks**

The Office Action/Restriction Requirement dated January 22, 2009 has been considered. Claims 1-11, 18-20, 23, and 24 have been amended without the addition of new matter. Claims 26 and 27 have been newly added. Responsive to the restriction requirement cited in the Office Action, Claims 12-17, 21-22, and 25 have been canceled without prejudice to Applicants' right to file divisional applications for these claims. Reconsideration of the pending claims is respectfully requested.

### ***Interview Summary***

The Attorney for Applicants would like to thank Examiner Dollinger for the courtesies extended during the telephonic interview conducted on March 20, 2009. Additionally, Dr. Smith and the Attorney for the Applicants would like to thank Examiners Dollinger and Zimmer for the courtesies extended during the telephonic interview conducted on April 1, 2009. The Attorney for Applicants agrees with the March 26, 2009 Interview Summary prepared by Examiner Dollinger in connection with the respective telephonic interviews.

As to the April 9, 2009 Interview Summary, the Attorney for Applicants agrees with the Interview Summary except for the statement that "Examiners told Applicants that the proposed amendment would have to be accompanied by an affidavit **with experimental results** (emphasis added) showing that the prior art is inoperable in the claimed ranges of thermoplastic adhesives." The Attorney for Applicants recalls this discussion but does not recall any reference made during the interview to including experimental results as set forth in the last part of the Interview Summary.

### ***Election/Restrictions***

Responsive to the September 24, 2008 telephone conversation with Examiner Lee and the March 20, 2009 telephone interview with Examiner Dollinger, Applicants hereby confirm election of Group I (Claims 1-11, 18-20, 23, and 24 – SAP composition claims), and Species B directed to claim 8, inorganic fine particles, without traverse, for prosecution on the merits in connection with the above-identified application.

The non-elected claims of Group II (Claims 12-17), Group III (Claims 21 and 22), and Group IV (Claim 25) have been withdrawn from consideration, and canceled, at this time without prejudice to Applicants' right to file divisional applications thereon.

***Claim Rejections – 35 USC § 103***

In Paragraph 9 of the Office Action, claims 1-6, 8-11, 18-20, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mukaida et al (EP 0 612 533 A1 or US 5,672,419) in view of Sun et al (US 6,124,391). Reconsideration of the current claims is requested in view of the amendments to the claims and the following remarks.

The present claims are directed to treated water-absorbing polymer particles consisting of a powdery water-absorbing polymer comprising 0.01 to about 20% of a fine particles having a particle size of less than about 200 $\mu$ m, about 0.001 to less than 1% of a thermoplastic adhesive; and water-absorbing polymer particle with a particle size of more than about 200 $\mu$ m wherein the fine particles are bound to the surface of the water-absorbing polymer particles by the thermoplastic adhesive and the treated water-absorbing polymer particles have either a FFC of from about 1 to about 13, or a dust portion of up to about 6. As set forth in the current claims and the affidavit of Dr. Scott Smith (attached hereto as Appendix A), the treated particles of the present invention involve using a small amount of thermoplastic adhesive to bind fine particles to the surface of water-absorbing polymer particles during the making of the treated superabsorbent particles. This results in treated particles that can flow smoothly and are not dusty. The thermoplastic is an adhesive that binds the fine particles to the surface during processing and then, after binding the fine particles, the treated particles must be able to flow without binding together, bind the dust to the particle during mechanical stress, and not bind to the fibers in a diaper. Dr. McIntosh's affidavit (attached hereto as Appendix B) sets forth that using a thermoplastic adhesive of 1 wt% or more results in the SAP particles binding together and resulting in the present invention being inoperable.

On the other hand, Mukaida et al. discloses a water absorbent composition comprising water-absorbing polymer particles and 0.5 to 30 parts of a resin powder having heat adhesion property at 50-200°C wherein the water absorbent composition binds to a fibrous material (C),

exemplified as cellulose-type fibers, organic synthetic fibers, and mixtures thereof. Mukaida et al. also discloses that organic and inorganic powders can be added to the water absorbing material that is adhered to fibers. However, Mukaida et al. does not disclose treated particles in which fine particles are bound to the surface of the water-absorbing polymer particles by thermoplastic adhesives. As set forth in the attached affidavits of Dr. Scott Smith and Dr. Stan McIntosh, using the amounts of thermoplastic adhesive suggested by Mukaida et al. in the present invention would result in the SAP particles sticking together into a large mass, which cannot be processed, and, hence, the present invention would be inoperable.

Sun et al. discloses a mixture of SAP particles and inorganic powder as set forth in paragraph 12 of the Office Action. An important aspect of Sun et al. is maintaining the free-flowing properties of the SAP particles (col. 1, l. 66 to col. 2, l.10. Sun et al. further discloses that the inorganic powder is added to the SAP particles in the dry state or with the addition of a liquid such as water (col. 7, ll. 32-48), which shows that one skilled in the art would know that it is not necessary to adhere such inorganic particles to the SAP particle. It is stressed that Sun et al. is directed to making SAP particles that are free flowing as in the present case, and no use of adhesive is needed to add the inorganic matter to the particles.

In view of the current claims, the foregoing remarks, and the attached affidavits of Dr. Scott Smith and Dr. Stan McIntosh, it is requested that the rejection of claims 1-6, 8-11, 18-20, 23 and 24 under 35 U.S.C. 103(a) as being unpatentable over Mukaida et al. in view of Sun et al. be withdrawn.

In Paragraph 18 of the Office Action, claims 1-5, 8-11, 18, 19, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ball (WO 91/18042 A1) in view of Sun et al (US 6,124,391). Reconsideration of the current claims is requested in view of the following remarks.

Ball is directed to adhesive SAP particles by blending the SAP particles with a hydrophilic thermoplastic resin until mixture no longer flows freely, and, optionally, adding to the mixture a flow control additive, and blending the mixture until the mixture flows freely. As in Mukaida et al., Ball is directed to adding enough hydrophilic thermoplastic resin adhesive to bind the SAP particles to the fibers. As set forth in the attached affidavits of Dr. Scott Smith and

Dr. Stan McIntosh, using the amounts of thermoplastic adhesive suggested by Ball et al. in the present invention would result in the SAP particles sticking together into a large mass, which cannot be processed, and, hence, the present invention would be inoperable.

In view of the current claims, the foregoing remarks, and the attached affidavits of Dr. Scott Smith and Dr. Stan McIntosh, it is requested that the rejection of claims 1-5, 8-11, 18, 19, 23 and 24 under 35 U.S.C. 103(a) as being unpatentable over Ball in view of Sun et al be withdrawn.

In Paragraph 24 of the Office Action, claims 1-6, 8, 11, 18-20, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eisfeld et al (DE 100 26 861 A1) in view of Sun et al. (US 6,124,391). Reconsideration of the current claims is requested in view of the amendments to the claims and the following remarks.

Eisfeld et al. is directed to adhesive SAP particles by blending the SAP particles with a thermoplastic resin wherein the adhesive particles include from 1 to 15% thermoplastic adhesive. Eisfeld does not disclose or suggest adding particle fines to the adhesive SAP particles. As in Mukaida et al. and in Ball, Eisfeld et al. is directed to adding enough thermoplastic resin adhesive to bind the SAP particles to the fibers.

In view of the current claims, the foregoing remarks and the attached affidavits of Dr. Scott Smith and Dr. Stan McIntosh, it is requested that the rejection of claims 1-6, 8, 11, 18-20, 23 and 24 under 35 U.S.C. 103(a) as being unpatentable over Eisfeld et al. in view of Sun et al. be withdrawn.

***Priority***

Responsive to Paragraph 30 of the Office Action, Applicants filed via Express Mail on February 20, 2009 a certified copy of the DE 103 34 286.9 priority application as required by 35 USC 119(b).

***Conclusion***

In light of the remarks and amendments to the claims presented herein, Applicants submit that the present application is in condition for allowance, and such action is respectfully requested. If, however, any issues remain unresolved, the Examiner is invited to telephone Applicants' counsel at the number provided below.

Respectfully submitted,

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